



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,424	05/23/2001	Victor M. Markowitz	4010US (43413-221712)	8455
23370	7590	10/29/2003	EXAMINER	
JOHN S. PRATT, ESQ KILPATRICK STOCKTON, LLP 1100 PEACHTREE STREET SUITE 2800 ATLANTA, GA 30309			LY, CHEYNE D	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,424

Applicant(s)

MARKOWITZ, VICTOR M.

Examiner

Cheyne D Ly

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 15-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 15-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 03/03.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicants' arguments filed August 28, 2003 have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.
2. The cancellation of claims 2-14 and the addition of claims 15-41 have been acknowledged.

CLAIM REJECTIONS - 35 U.S.C. § 112, SECOND PARAGRAPH

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1, 15-20, and 29-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. This rejection is necessitated by Applicants' amendments.
4. Specific to claim 1, the preamble recites the phrase "in a network system for biological exploration and analysis, a method for managing a plurality of databases..." which causes the claim to be vague and indefinite because it is unclear what Applicants have intended to claim, a network, system, or a method for managing a plurality of databases. Clarification of the metes and bounds of the instant claim is required. Claims 15-20 are rejected for being dependent from claim 1. The instant claims are examined as being directed to a network system as recited in claim 1.

5. Specific to claim 29, line 11, “wherein sample data”; and claim 33, line 6, “the results”; there are insufficient antecedent basis for the limitations in the above claims. Claims 30-34 are rejected for being directly or indirectly dependent from claim 29.
6. Claim 33, line 6, recites “results for the first and second sample sets,” which lacks antecedent for the limitation of the first sample set.
7. Claim 34 which depends from “the method of claim 29” is vague and indefinite due to the method of claim 29 does not exist.

CLAIM REJECTIONS - 35 U.S.C. § 112, FIRST PARAGRAPH

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
9. Claims 1, 15-28, and 35-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.
10. This rejection is necessitated by Applicants’ amendments.
11. Claims 1, 15-28, and 35-41 are rejected due to being directed to a “network system for biological exploration and analysis” which is considered to be new matter (See the above 35 U.S.C. § 112, SECOND PARAGRAPH rejection). It is acknowledged that Applicants disclose “a system and method for managing gene expression data” for supporting efficient exploration and analysis (Abstract etc.). Further, Applicants disclose the use of

a network for users to download data and configuration files over a network (page 75, lines 14-15 and page 81, lines 18-19). It is noted the instant specification meets the written description requirement for “a system and method for managing gene expression data,” but not for a “network system for biological exploration and analysis” due to said network system having different embodiments as directed to the claimed subject matter.

CLAIM REJECTIONS - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 29-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory algorithm type subject matter.

14. This rejection is necessitated by Applicants' amendments.

15. Claims 29-34 are rejected due to the claimed subject matter being directed to a non-statutory subject matter due to lacking any physical means for displaying the stored information from the database. Currently, the computer program merely comprises algorithmic processes of manipulating data directed to biological data without providing a means of visualizing the results of the said processes. The claimed invention as a whole is directed to a combination of interrelated elements, which combine to form a computer system for storing biological data in a database without providing a means for displaying the stored biological. The critical steps of displaying the drug information would cause the subject matter in its entirety to be a practical application (MPEP § 2106 (IV)(B)(2) (b)).

16. Further, it is acknowledged that the computer program comprises the limitation of “a user query”, however, the “user query” could be interpreted digital signals corresponding to user-initiated commands to be processed by the said system.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 29-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eckman et al. (1998).
19. This rejection is necessitated by Applicants' amendments.
20. Eckman et al. discloses a computer program product (page 3, column 2, Hardware and Software §) wherein the gene expression data (EST) is divided into plurality databases (pages 3-4, Data Sources §) and grouped into at least two fragment classes according to accession number and quality analysis as exemplified by the *Local relational database* disclosure (page 4, column 1, lines 14-30). The computer program product of Eckman et al. has library information which indicates the tissue type used as the source of the clone (page, 7, Clone data module §) and highly targeted query wherein a user can “retrieve all index classes which are differentially expressed in breast, are similar to known GPCRs or contain a TM7 motif, and are mapped to chr 8q12” (page 12, column 1, lines 3-8), as in instant claim 29.

21. The search results presents two reports: classes represented by ESTs of interest and ESTs that have no index class assignment (page 8, column 2, lines 8-10) (unknown), as in instant claim 30.
22. The inclusion of a document by Lodish et al. is not used as prior art, but only to expand on GPCR as directed gene pathway (Figure 20-6).
23. "It assume that an EST or set of ESTs has already been identified by preliminary gene-finding efforts (first sample set) and sequent searches against said set of ESTs is performed via BLAST (second sample set) (page 8, column 2, Modes of access to the MGI data §) and up to 20 hits are displayed in order of significance (ranking and threshold) (page 8, column 1, lines 20-21), as in instant claims 31-33.

CONCLUSION

24. NO CLAIM IS ALLOWED.
25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
26. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

Art Unit: 1631

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

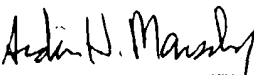
27. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is (703) 872-9306.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (703) 308-3880. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.

30. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

C. Dune Ly
10/28/03


ARDEN H. MARSHALL
COMMISSIONER OF PATENTS